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Medical Times

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Antral and Ethmoidal Malignancy
Evipal Soluble in Dentistry
Mental Hygiene • Cancer
Inguinal Herniorrhaphy

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IN PLACE OF MORPHINE

EDITORIALS

Proposing a Chair of Clinical Engineering

MACHINES have had a great deal to do with the flowering of modern medicine. Much of such medicine cannot be dissociated from the x-ray, diathermy, hyperthermy and paevex machines, the sphygmomanometer, the respirator, the centrifuge, the autoclave, the five plasma-drying technics, the surgical stitching instrument, the skin grafting knife, the motorized bone tools, the Wangensteen device, the internal combustion engine (automobile), the electrocardiograph, the apparatuses for transfusion, etc. Clinical engineering might well be taught as a new branch in the medical schools.

The machine age has implemented medicine in a wonderful way, but is there any way of proving that we are the masters of the machine and that we will never be enslaved by it; that is, in so far as medicine, not industry, is concerned? Well, there is the example of the axis-traction forceps. Modern obstetrics has moved beyond the period when it was thought proper to apply such an instrument to the unengaged head above the ischial spines, yet thirty-five years ago a machine was devised which, when attached to the axis-traction forceps, multiplied (with an 80-pound maximum) slight effort on the part of the obstetrician. With the passing of "high" and "floating forceps" the axis-traction instrument has been less frequently used and, of course, the machine which was intended to supplement it is forgotten. The axis-traction forceps itself gets a bare mention in Beck's *Obstetrical Practice.*

So we put machines in their place when they no longer serve a good purpose. They are means to ends, not ends in themselves. We are their masters; in other words, good engineers.

The Two Syndromes which Bear the Names of Women

TWO women have achieved eponymic distinction. Two syndromes have taken the names of Déjerine Klumpke and Gertrud Hurler.

Madame Klumpke, Parisian neurologist, described the paralysis associated with her name in 1885 (*Rev. de méd.* 5:591, 1885). The condition is due to lower brachial plexus trauma during breech delivery. The lesion involves the eighth cervical and first dorsal roots. Strong traction on the aftercoming arm does the damage. The flexor muscles of the forearm and the small muscles of the hand, supplied by the ulnar nerve and the inner head of the median nerve, are paralyzed, the resulting atrophy giving rise to claw hand. Sensation may be lost on the inner side of the hand and forearm. There is irregularity of the pupils. Erb's upper brachial palsy involves the fifth and sixth cervical roots and affects the muscles of the shoulder girdle. Whether a Klumpke or an Erb type of paralysis occurs depends upon the direction of the traction and upon which roots of the plexus are injured.

Gertrud Hurler first described fully developed gargoylism in 1919 (*Ztschr. f. Kinderh.* 24:220, 1919). Something like sixty cases have been reported. C. Hunter, in 1917, had described the skeletal deformity (*Proc. Royal Soc. Med.* 10:104, 1917). It is a lipoidosis characterized pathologically by intracellular and extracellular deposits of lipoid in the brain and elsewhere, chiefly perivascular. Synonyms are dysostosis multiplex and lipochondrodystrophy. Few of the cases survive into adult life. They grow normally the first year but are dwarfed thereafter. The grotesque head and face have been thought to suggest a gargoyle. The front of the jaw is straight instead of curved, with the teeth set along it at intervals

"like palings on a fence." The maxillary joint is so fixed that the mouth can be opened only slightly. John A. Washington's article in Brennemann's *Practice of Pediatrics* carries illustrations of three cases. Besides the ugly face (though the disposition is gentle) there are a ground glass appearance of the cornea, usually defective mentality, congenital deformities and abnormalities such as club feet, cervical ribs, hypertrichosis, heart defects, flaring ribs, sternal distortion, kyphosis, thickening and bossing of the bones near the joints, and enlargement of the liver and spleen. The ears are big and set low. The abdomen protrudes and umbilical hernia is common. The arms are short with the elbow joints fixed in semiflexion. The gait is crouching, clumsy and ungainly.

Needed—A Population Policy

IT is being pointed out by anthropologists and sociologists that "the effective fertility of the American people is likely to fall below the level required to maintain a stationary population." This is not the case with Japan and Panunzio of the University of California points out in the April *Scientific Monthly* that even if we win the present war against Japan "we may, in the next generation, be obliged to confront a nation with an even greater manpower than it now possesses."

It seems that by 1970 Japan's total population will probably increase by about thirty millions, while that of the United States will increase by only eighteen millions. "And," Panunzio goes on. "since the age structure of the two nations is markedly different, Japan will have an appreciably greater proportionate increase in manpower than will the United States. Any loss of births at present on the part of the United States will, therefore, be far more serious than that which Japan can experience. In view of these facts, the United States and Japan will face a manpower situation somewhat similar to that which France and Germany faced in 1940. This statement is intended to create alarm, but even more to stress the full import of the situation."

Man of Straw

THE Science Editor of the *New York Times* continues, whenever the opportunity offers, to assail a straw man known as the general practitioner of medicine for pretending to possess resources qualifying him to treat all comers in his office. His objective, of course, in this method of attack, has to do with certain much publicized goals desired by him and like thinkers.

To be sure, no general practitioner pretends to do anything of the sort. The accusation is just as hollow as if one were to attack a general practitioner of science editing for pretending to possess resources qualifying him to deal adequately on paper and on the platform with every aspect of modern science.

There are good arguments for the kind of medical practice that the Science Editor of the *Times* would like to see in operation, but the one that revolves around a man of straw possesses no validity.

Slightly Bewildering

IF, said the *New York Times* editorially on January 20, right on the heels of the adverse Supreme Court decision, the American Medical Association can supervise hospitals it can do as much for group practitioners and make certain that they are rendering the kind of medical service that we ought to have. This supervision, the *Times* said, is all the more needed because group practice is one of the expedients to which we must resort if we are to make the most of the physicians who still remain in private practice in States depleted of professional resources.

But it was a Washington group whose "kind of medical service" the American Medical Association undertook to scrutinize and criticize.

Already the need of the Association's services are realized. But in view of the recent Supreme Court decision, how shall the Association proceed, or we might even say, why should it proceed at all?

Our Zanies' Blueprint of Utopia

THE proposal by proponents of the "Post-War Plan" of "adequate medical and health care for all, regardless of place of residence or income status and on a basis that is consistent with the self-respect of the recipients" is the product of curious mentalities. How could the acceptance of health and medical care regardless of prosperous income status be reconciled with self-respect? On grounds

both of logic and humor the proponents stand forth in a ridiculous light.

And all this in the midst of present confusion for which the same or similar planners are responsible! Neither the present confusion nor this Utopian dream of a "perfect" State implies competence.

Economic Serfdom Versus Economic Democracy

THE vast costs of expanded post-war social security projects, including sickness insurance (fifteen billion dollars annually, according to Joseph Stagg Lawrence, vice president of the Empire Trust Company), gives no pause to our busy planners. Obviously, the cost of living would be unduly raised.

What is being aimed at is socialized public health services, medical care, hospitalization, nursing, medicines and dentistry, "from the womb to the tomb."

We have had political democracy, but never economic democracy. If we had ever had it it would not now be necessary to resort to the palliative measures which obsess the planners. If our social system had been sanely geared economically, in other words if the profits of industry had been properly shared, no crackpot plans would be in the air. At this point capitalism failed.

Paradoxically, the costs of the new bureaucracy which looms before us will be greater than social justice, which would have enabled the free citizen to pay for medical services directly and self-respectingly, instead of through a paternalistic government.

Are we moving toward what a large body of studious opinion in Great Britain holds will be the future set-up in Europe, including Germany, as well as in the Middle East and Japan, according to Associated Press dispatches of May 7? In other words Sovietism, beginning with the small states bordering on Russia and emerging strongly in the Balkans. An Italy in upheaval against chaos would also provide fertile soil for Communism. Germany itself, likewise in torment, would probably go the way of the rest.

What our own planners seem to have in store for us could be adjusted, with no great agony, to such a system as the Associated Press dispatches have pictured, which is just what we don't like about the plans. The step to totalitarian pollution would be too easy a one.

Radio Hygiene

A MERRY war is being waged over the daytime serials known in radio parlance as soap operas, so called because they are sponsored by manufacturers of cleansing products. This war has to do with the question of the harmfulness or harmlessness of these serials, which are listened to daily by millions of women and which bring in more millions of money to two of the major networks than any other type of program, according to the *New York Times*.

The soap opera is "a piece of story-telling for wide popular consumption." While not always unhappy as to theme, its fascination for the hearers depends chiefly upon its trouble theme. "Most people enjoy hearing about other people's troubles." "Frequently the bout involves the Eternal Triangle."

The experts, medical and otherwise, are divided into two camps, one group finding the solutions ethical and helpful, the other denouncing the stories as feeding up lonely and already troubled listeners on personal woes, as catering to states of anxiety, as encouraging fantasy life by way of morbid escape from reality and responsibility, as projecting self-pity, as making for wishful thinking, and as offering phony philosophy and neurotic egoism.

Even the psychiatrists divide on this momentous issue. To one school it is a debilitating factor in national life, to another it makes for better mental health and morale.

Whatever the medical truth, we have here a twofold revelation, one relating to the social and cultural planes upon which our people live and have their being, the other relating to the commercial exploitation of the status quo by a new industrial technic.

"Procreative Conquest"

THE high death rate among the children of France and the steady increase of tuberculosis in her youth have convinced some observers that these things are in part cannily designed. Such a highly deteriorated stock will lose its virility, so that a kind of sterilization will be in effect. In this sense the enemy may yet win the war even if he loses it. For it is not alone the French who are being destroyed by other than military conquest.

—Concluded on page 204

MALIGNANCY OF THE ANTRUM AND ETHMOIDS

CHARLES A. ANDERSON, M.D., F.A.C.S.

THE object of this case report is to bring to the attention of the medical profession not interested in the diseases of the ear, nose and throat the fact that malignancy of the paranasal sinuses may be attended with very little symptomatology.

MRS. K. W., 59 years of age, was referred to me with a history of numbness over the right side of the face and along the gums of the lower jaw, extending from the angle to the median line, accompanied by a burning sensation of the hard palate. Examination of the nose showed ample breathing space on either side; no signs of bleeding or new growth. The right middle turbinate was slightly enlarged and there was a suspicion of polypoid tissue beneath it. Transillumination showed a dark shadow over the right antrum. There was no glandular involvement. Roentgenogram examination revealed a clouding of the right maxillary and ethmoid sinuses. The density of the shadow suggested the presence of some effusion. The remaining accessory sinuses appeared normal.

Owing to the density of the shadow and the age of the patient, a malignancy was suspected, and a radical antrotomy was performed. A large mass was found, involving the nasal wall, filling about two thirds of the antral cavity and involving the floor of the orbit. A biopsy was reported as an epidermoid carcinoma. A week later, a Moure operation was done, which showed a mass the size of an English walnut in the antrum, and a marked involvement of the ethmoid cells. The lining of the sphenoid cavity was removed. A portion of the ethmoid plate was necrotic and the dura was exposed. One hundred mgms. of radium was inserted in the cavity and left in for 24 hours. Two 50 mgm. tubes, screened with ½ mm. platinum, and 5 mm. vulcanizing rubber, were used: One was placed in the antrum and the other in the nasal cavity, one-half inch from the ethmoid plate and exposed dura, and also one-half inch anterior to the sphenoid cavity.

The patient made an uneventful recovery. There was a certain amount of discomfort, due to lacrimation and conjunctivitis of the right eyeball. Pain and numbness along the lower jaw still persist, seven weeks following operation.

YOUR attention is called to the fact that, in spite of the large amount of involvement, the only symptoms present were: numbness of the cheek, extending along the lower jaw, and a burning sensation of the hard palate.

Malignant tumors of the paranasal sinuses are rarely diagnosed early. Many of these cases are treated for chronic sinusitis. Pain, nasal obstruction, bleeding, prominence of one cheek, protrusion of the eyeball, and bulging hard palate are late symptoms. A biopsy should be obtained in all suspicious cases, either by surgical exploration or, in suitable cases, by aspiration biopsy.

Dr. Wiliam L. Watson, in the *Laryngoscope* of January, 1942, reported a consecutive series of 127 cases of cancer of the paranasal sinuses over a ten year period from 1928-1938, in which he states that cancer primary in the paranasal sinuses is a comparatively rare disease. A total of 26,062 new patients admitted to the Memorial Hospital during this period showed an incidence of paranasal sinus cancer of .44 per cent. The average age was 54, the youngest being a boy of 4 years, and the oldest a patient of 83 years. Dr. G. Allen Robinson, in the *Laryngoscope* of April, 1933, reports one case of a child two years of age.

IT seems to be the consensus of opinion that in early cases, confined to the sinus without metastases, removal of the growth with a surgical cautery, followed by cauterization of the surrounding tissues, is the method of choice. The use of radium and roentgenotherapy at the time of operation or during the follow-up

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period has greatly enhanced the cure of these patients.

In the late cases that have extended beyond the confines of the nasal cavity, roentgenotherapy, radium, or a combination of the two, seem more advisable.

References:

1. Watson, William L.: Cancer of Paranasal Sinuses. *Laryngoscope*, 52:22 (Jan.) 1942.
2. Robinson, G. Allen: Radium in Malignant Tumors of the Nasal Sinuses. *Laryngoscope*, 43-285 (Apr.) 1943.

32 EIGHTH AVENUE.

INGUINAL HERNIORRHAPHY

HENRY F. GRAHAM, M.D., F.A.C.S.
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IN the past ten years we have operated upon about 400 inguinal hernias on the First Surgical service at the Methodist Hospital. Nearly all of these operations have been performed by the method described by F. G. Meynen in the *Medical Times and Long Island Medical Journal* of January 1933, with some modifications to be later described.

In a study made prior to 1939 examinations were made of 201 of these patients from one to five years after operation. 126 were followed more than two years. There have been four recurrences in those thus examined; namely, 2 per cent.

There were no deaths but certain complications occurred. Complete atrophy of the testicle occurred six times—two after attempts to bring down an undescended testicle. Partial atrophy was noted five times. No atrophy has been seen in any case since we began to nick the edge of the aponeurosis opposite the cord as will be described later. Hydrocele was seen five times after operation. In three of the cases an associated varicocele was excised in addition to the herniorrhaphy. Recently we have turned the tunica vaginalis inside out more frequently at the time of operation when we had any special reason to fear a hydrocele.

Two of our four recurrences came two months after a bilateral herniorrhaphy in an alcoholic patient with a chronic bronchitis. We prefer spinal anesthesia.

TECHNIQUE. The incision in the skin is slightly higher and more oblique than the usual one. It is prolonged downward for an inch below the external ring. The outer surface of the aponeurosis is then scraped clean of all areolar tissue over the area that will later be in contact with the inner surface of the lower flap. The aponeurosis is cut along the line of the inner pillar so that a wide lower flap is obtained. The inner surface of this lower flap is then rubbed with gauze to remove the areolar tissue. The cord is lifted, the sac dissected free and ligated high up and removed. No effort is made to transplant the neck of the sac. All fat and areolar tissue are then carefully removed from the back wall of the external ring exposing the periosteum covering the pubic bone. Nonabsorbable sutures are then placed to unite the edge of the upper and inner flap to the periosteum of the pubic bone and Poupart's ligament. These sutures should be about ⅜ inch apart and be placed close to the cord on both sides. The edge of the aponeurosis is then nicked with scissors to prevent too tight a fit. This converts a long narrow slit into a triangle and makes good closure without pinching. The lower and outer flap is then brought up and sutured superficial to the upper and inner flap. A few interrupted plain gut sutures to the fat and a skin suture complete the operation. No effort is made to support the scrotum. Swelling of the testicle or scrotum is seldom seen now.

THE success of this operation depends largely upon the care exercised by the surgeon. There were 27 different operators working on the cases here reported. This operation is simple and well adapted to nearly all the inguinal hernias that are seen in the usual hospital service.

474 FIRST STREET.

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USE OF EVIPAL SOLUBLE AS AN INTRAVENOUS ANESTHETIC IN DENTISTRY

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INTRAVENOUS anesthesia has a place in all types of dental surgical procedures. The use of nitrous oxide in many dental offices is gradually being replaced by intravenous anesthesia using some form of barbiturates. For the patient needing a short anesthesia, evipal soluble seems to be the anesthetic of choice.

For intravenous anesthesia, the patient needs no preoperative preparation, and neither does he need any preoperative sedative. After the patient arrives at the dental office, a careful history should be taken and a physical examination made, in order to detect any disease of the heart, lungs, liver or gallbladder. If the history is essentially negative and the patient's physical examination shows the general condition to be within normal limits, one may proceed with the intravenous administration of evipal soluble.

The technic is as follows: The patient is first placed in the dental chair with the back and headrest lowered. The clothing is loosened. If there is removable dental work of any type, it is removed before administration is begun. A rubber prop is placed in the mouth on the side opposite the field of operation. If both sides of the mouth are to be operated upon, the rubber prop is shifted after the anesthetic has taken effect.

The intravenous anesthesia is begun by injecting evipal soluble into the median vein of either arm at the rate of 1 cc. every fifteen seconds. The patients who are not apprehensive are usually asleep within from thirty to forty-five seconds. Usually, between 3 and 4 cc. of the evipal soluble is injected to induce anesthesia. For the average number of dental extractions, it has been found that only from 3 to 4 cc. of evipal soluble is necessary to give complete anesthesia for the duration of the operative procedure. When the patients are overweight or extremely apprehensive, a larger amount of evipal soluble may be needed.

The advantages of evipal soluble anesthesia are manifold. There is virtually no excitement stage. There is usually no cyanosis or other change of color of the patient. The pulse pressure and blood pressure change very little. The pupillary reflexes react throughout the entire anesthesia and the cough reflex is not abolished. This is an important point since it tends to prevent the aspiration of foreign material into the bronchi and lungs, which may result in pneumonia. However, it must be remembered that if there is much free hemorrhage after the extraction, an aspirator should be used to keep the blood from entering the bronchi.

The time that the patient is asleep is usually very short. In the majority of cases, the patient is wide awake as soon as the dentist finishes the extraction. At times, tremors of the extremities have been noted, but to date there have been no serious accidents or untoward complications of any type. In setting up the equipment in the dental room, however, it is advisable to have picrotoxin and metrazol and also coramine available for any emergency that might arise. An airway and an oxygen tank might be desirable for ready use.

If it is necessary to keep the patient under anesthesia for a longer period of time for extraction, the fractional dosage method may be used in conjunction with preliminary sedation employing morphine or some barbiturate.

At the time of writing, evipal soluble has been administered intravenously about 100 times for several dentists with excellent results in all cases. The patients' ages and weights varied, the age limits being 15 and 75 and the weights varying from 70 to 240 pounds.

The advantages over gas anesthesia are the following:

1. There is no excitement stage in going under the anesthesia or in waking.
2. There is usually no change of color under anesthesia and the cough reflex is not abolished.
3. The time of anesthesia can be controlled.
4. Use of the anesthesia has proved safe and the patients have been well satisfied with it.

The anesthetic is non-explosive, compact, easily transported, and may be used in field hospitals and in war zones.

2030 WILSHIRE BOULEVARD.

MENTAL HYGIENE NOTES

BETWEEN MENTAL HEALTH AND MENTAL DISEASE

BENZION LIBER, M.D., Dr. P. H.

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FAITH may evaporate, but the strong impression gained in childhood through a religious upbringing may remain and interfere with sex life and marriage, especially when a so-called "mother fixation" also adds its influence.

HERE is a patient who passed through an evolution composed of three definite phases. We must begin with the second.

His life history is a painful tale.

When he first presented himself to a certain New York clinic, years ago, he was inclined to commit suicide. However, as he was questioned about it in a direct manner, he denied it, but added: "Who's going' to stop me from jumpin' in front of a car in the street or in front of a subway train? You go out, and, you know how it is, you don't care what happens." And he immediately protested: "Oh, I used to feel that way. But, no more, I'd never do it."

He mistrusted the people with whom he lived so much that he carried many of his belongings about his person. All his pockets were bulging and packages were sticking out from both sides of his chest. He seemed to misconstrue the "*omnia mecum porto*", the word of the ancient philosopher who was naked, into actually carrying upon himself everything he owned. He had been living at the shady end of society and betrayed his association with it by using certain characteristic expressions and by telling significant anecdotes derived from his erstwhile, but now abandoned, life in the underworld or on its fringes. He illustrated this environment by narrating, for instance, that one of his friends, grateful to his doctor for a cure, wanted to reward him, and said: "Doctor, if you want anyone to be bumped off, I'll gladly have it done for you."

"But now I'm out of it," our patient said, "I don't care to see them guys any more."

He was just then groping toward the light and was ready to accept a friendly hand. That was the reason he came to the clinic.

He disappeared, travelled much, had many more adventures, this time of another nature, became a salesman and "made good." He finally acquired a store and settled down definitely.

When seen again, this time privately, in a later stage of his more favorable change, in a sort of reincarnation, he was still somewhat disturbed, but only from time to time, and never helpless. He earned a good deal of money and supported a widowed aunt and her young children, although he was not living with them.

He was decently dressed—in fact with taste—and his language was polished.

His complaint was his inability to regularly associate with people and particularly with women. Long ago, when much younger, he had been more desirous to be "like everybody", to love a girl and get married. Now these yearnings were rare and came in the form of spells. Then he would despair and would have to stay at home, entirely by himself, for at least three days and neglect his business.

HIS own, abbreviated, description of his ordinary state of mind was something like this:

"I am self-conscious. I am all right in business. In a group I become dull, tied in a knot, I just don't seem to be able to let myself out. Sometimes I still have an impulse to put my arm around a woman's waist, but I never do it, something holds me back. On such occasions I become formal and polite."

As he would get more and more talkative he would go back to his childhood. The memory of his father appeared to him as that of a red-faced man with frightful whiskers—"probably because he neglected

to shave," he would add—always drunk, beating both him and his mother. He hated him.

He saw her, also dead long since, in a close embrace with a strange man and in dread lest her husband should discover her in that position. Although she submitted to her master's blows, she was domineering in her relations with other people and particularly with her little boy. Her face, her sadness, which never disappeared from it, her sternness when she gave orders to him, did not leave him through life. He conspired with her, watched outside to see if his father was coming and notified her and her lover in time. He admired and loved her.

Later he was in a Home for Orphans, from the age of seven to the age of thirteen and that had the strongest effect upon him. There were boys only. Girls were taboo in every respect. The only occasion for seeing them was the after-school half-hour. Any boy who paid the least attention to a girl was called a "sissy" by the playmates and was often even reported to the Home supervisors. But our patient was thrilled by being near them. At ten his first masturbation occurred, very limited and hurried, because of the fear of the confessional.

He said:

"In the period of six years while living in the Home no one ever visited me, as other boys were visited by relatives. When I came out of there I was a strange child among strangers. I lived with grandmother, mother's mother. She was nice, but she was Protestant and told me that neither the people in the Home nor my father had been good. However, there were other persons living with her, some distant relations, and they all kicked me, slapped me and made fun of me for being a "catlicker" (Catholic). I was sent to peddle papers and never received one cent of the money for myself. Some of the lickings I got I well deserved, but no one gave me a single word of sympathy or encouragement or advice. I dared not ask a question, being afraid of the reception it would get.

"Then I ran away and—strange to say—I was picked up by a Greek-Orthodox priest, who employed me for various errands and gave me food and a place to sleep. He used to meet a Rabbi whom he knew from the old country and they both wore beards, which made them resemble my father or as much of him as I could recollect. And one day I had a horrible thought: all three were really one and the same person and, just as I feared and hated my father, so I began to hate and fear the priest. I left him, and ever since I cannot escape the thought that being a Catholic like my father or having another religion like the Rabbi or the Orthodox priest was a pure coincidence, that they were interchangeable persons—and therefore I lost my respect for all religions."

IN a still later stage, however, he thought he could return to faith, to his own faith, and, in his despair, he addressed himself to an elderly devout man he had known in childhood. This well-meaning gentleman did all he could to bring the young man back to his Church, but failed.

Some passages of the letters received by our patient from this sincere believer are quite typical and they read thus:

"Just hop out of your warm bed a little extra early, go down to Mass and Communion, try to put in a few half-hour periods of adoration . . . Christmas eve is a day of fast and abstinence, of spiritual preparation for Christ's coming; New Year's a holy day of obligation, requiring attendance at mass . . . Once an individual becomes gross in matters of the difficult commandment, once he loses the desire and the hope to reform himself, he begins to show weakness in faith . . . If you fall into any form of unchastity get back immediately through a good confession to the state of grace . . . Within a few days is the Feast of the Holy Family, which should be your ideal of family life . . . Look deep down into that soul created by God and purchased anew with His Blood on Calvary. Are you not happiest when in the state of grace—a son of God and brother of Christ—with Christ and Our Lady, instead of the devil, at your side? . . . Yes, lick the devil—and lick yourself especially . . . If you would only give the sacraments an honest chance, you would really be surprised how things pick up, how the helping Hand of God, through grace, would soon control the wilder, lower trends of nature . . . Pray, during your Thanksgiving, to Our Lady of Lourdes. She is the health of the sick . . . God made things good, pain and death come as a penance for sin . . . Thank him for the consecration of suffering . . . Whether you

eat or drink, or whatsoever else you do, do all for the glory of God . . . Ask for relief from illness, if relief is God's holy will."

The patient made a last effort to believe. If that had been possible he might have been cured by devoting himself to the Church entirely. But his old skepticism and rebellion, much increased during his adventures, were still present.

IN the mind of this man there were two inhibitions, one against all women, an opposition left from the sojourn in the Home. As a child he had evidently been more naive than his little colleagues, and had taken literally both the prohibition to play with girls and the spirit with which this was inculcated. He had not been able to free himself from that curse. Then the mother's influence and ascendancy never ceased to overpower him, No, it was not the common "mother attachment", but a strong tie composed of pity and awe, at the bottom of which there may have been an erotic feeling for her, or not. For a masochistic personality, domination in a general way may have the same effect as sexual possessiveness.

A condition of this kind may be incurable. Everything done by several good mental physicians seemed to have been of no help as far as the "attacks" were concerned, although as a whole he was greatly improved.

BUT now comes the last act—the shortest and the best.

This patient had accepted the situation and was ready to stand his troubles, when along came the war. He enlisted in the Army and complained of nothing. He went to a camp where he was soon absorbed into the group where he belonged. He was as busy as the other men. He paid close attention to his work and he forgot all details from his past that had obsessed him. He made an excellent adjustment and his spells failed to reappear.

65 WEST 95TH STREET.

CANCER

Edited by John Mumford Swan, M.D. (Pennsylvania), F.A.C.P. Executive Secretary of the New York State Committee of the American Society for the Control of Cancer, Inc., assisted by Charles William Hennington, B.S. (Rochester), M.D. (Hopkins), F.A.C.S.

TEN AND FIVE YEAR SURVIVALS OF PATIENTS TREATED FOR CANCER IN THE HOSPITALS OF ROCHESTER, NEW YORK

WHEN the New York State Committee of the American Society for the Control of Cancer initiated its continuing educational program, some members of the medical profession thought that a program of popular education ought not to be undertaken because cancer was believed to be incurable and some went so far as to say that once a person had cancer he always had cancer and always died from it.

This attitude is illustrated by this quotation from a letter from a physician who was asked if the above statement represented accurately the remarks he made at a medical society meeting during a discussion of the question:

"In regard to my remarks concerning my opinion regarding cancer in the discussion of your paper on the diagnosis of cancer, you quoted me substantially correct. Of course, this applies to carcinoma. As a result of my observation and experience covering a period of over forty years in general practice and surgery, I have been forced to the conclusion that all cases of proven carcinoma in my practice have died of carcinoma, unless the patient had succumbed to some intercurrent malady in the meantime."

Reported at the Eighteenth Annual Meeting of the New York State Committee of the American Society for the Control of Cancer, held in Rochester, October 6, 1942.

In order to disprove opinions of this sort, which our Committee felt were not accurate, we undertook to discover the number of patients in the City of Rochester who had been treated in the hospitals of the community and had survived without recurrence for at least five years.

The President of the staff of each hospital was invited to appoint one of the members of the staff as a member of a committee for this investigation. The men so appointed were asked to examine the hospital records of five years earlier, to make a list of all the patients treated for cancer during that year; the organ involved and the physician who was in charge of the case. Then to find out from him whether the patient was living at the end of the five year period and whether there was clinical evidence of recurrence or of metastasis.

When this information was at hand the pathologists from three different hospitals were invited to examine the histological evidence in order to confirm the original diagnosis. A unanimous opinion concerning the malignancy of the tumor was required in order that a case should be included in the five year survival list.

We made no effort to analyze the form of treatment employed in the treatment of these patients; our object being to show that cancer can be cured.

The investigation was begun in 1930, has been carried on annually since and has been made possible by the loyal cooperation of the members of the Cancer Committee, which this year is composed of the following representatives:

Genesee Hospital, Dr. Lyman C. Boynton;

Highland Hospital, Dr. W. Frank Fowler;

Park Avenue Hospital, Dr. Santo F. Brancato;

Rochester General Hospital, Dr. Floyd H. Densmore;

St. Mary's Hospital, Dr. S. Miles Bouton, Jr.;

Strong Memorial Hospital, Dr. Andrew Dowdy of the Tumor Clinic and Dr. Karl L. Wilson of the Gynecological Service.

The first report of this investigation was made at the annual meeting of the Committee in 1930, when forty-three five year survivals were reported. Once having been listed as five year survivals the patients have been followed annually, either through the social service organization of the hospital or by letter to the attending physician.

Ten Year Survivals

IT is not easy to accomplish a continuous follow up in any community with a population of more than a few thousand, particularly if the city is a manufacturing center with a population the members of which make frequent changes of address and often disappear by moving to other communities. However, last year we had a record of 130 patients who had survived ten years.

During the past year twenty-two of these patients have been lost and five have died: one of general atherosclerosis, one of senility, three of recurrent cancer, (one of the prostate, one of the body of the uterus and one of the cervix of the uterus). Two were living with late recurrence.

Summary

Ten Year Survivals in 1941		130
Lost	22	
Died of cancer	3	
Died of other diseases	2	27
		103
Living with no clinical evidence of cancer	101	
Living with late recurrence	2	
Add new cases treated in 1932		21
		124

In 1937 forty-two five year survivals of patients treated in 1932 were reported. This year finds twenty-one of these patients still living with no recurrence, or exactly 50.0 percent. Bladder, 1; Breast, 8; Cecum, 1; Hypernephroma, 1; Rectum, 1; Sarcoma, 1; Skin, 1; Uterus, 7; (6 cervix, 1 fundus).

The fate of the other twenty-one patients treated in 1932 and lost or died in 1942 is as follows: two died of diabetes (one following breast cancer and one following cancer of the vulva), one died of unknown cause, seven were lost (six breast cancer and one cancer of the testicle), one lost in 1941 was reported to have died this year (1942) of pulmonary metastasis. The remaining ten were reported lost or died in the five years between 1937 or 1942.

One of these patients who was reported lost last year was a woman who had been

TABLE I.	To Be Accounted For	Living	Dead	Lost
CARCINOMA OF THE BREAST:				
Treated in 1933 (9 year survivals)	12	10(8)(9)	0	2
Treated in 1934 (8 year survivals)	18	13(4)	2(3)(11)	3
Treated in 1935 (7 year survivals)	19	15(1)(6)(7)	5(8)(9)(12)(13)(14)	0
Treated in 1936 (6 year survivals)	27	25	1(12)	1
CARCINOMA OF THE GASTRO-INTESTINAL TRACT:				
Treated in 1933	4	5(1)	0	0
Treated in 1934	11	9	0	2
Treated in 1935	6	6	0	0
Treated in 1936	8	5	0	3
CARCINOMA OF THE GENITO-URINARY TRACT: Except Uterus and Ovary				
Treated in 1933	4	3	0	1
Treated in 1934	5	5(1)	1(9)	0
Treated in 1935	2	2	0	0
Treated in 1936	2	1	0	1
CARCINOMA OF THE OVARY:				
Treated in 1933	1	1	0	0
Treated in 1935	3	2	0	1
Treated in 1936	5	3	0	2
CARCINOMA OF THE UTERUS:				
Cervix				
Treated in 1933	2	1	1(10)	0
Treated in 1934	9	9	0	0
Treated in 1935	5	4	0	1
Treated in 1936	7	6	0	1
Fundus				
Treated in 1933	10	10(2)	0	0
Treated in 1934	2	2	0	0
Treated in 1935	9	9	0	0
Treated in 1936	8	8(8)	0	0
MISCELLANEOUS MALIGNANCIES:				
Treated in 1933	4	4(1)	0	1
Treated in 1934	4	3(5)	0	1
Treated in 1935	4	3(1)	2(3)(12)	0
Treated in 1936	10	8	1(3)	1

Foot Notes

(1) One case reported lost last year, reported living this year
(2) One case operated for second cancer (breast) in 1940
(3) Cause unknown
(4) One with diabetes
(5) Case of thyroid carcinoma, insane
(6) One case operated for second cancer (rectum) in 1940
(7) One case with probable cirrhosis of the liver
(8) One with local recurrence
(9) One with metastasis
(10) One of senility
(11) One of myeloid leukemia
(12) One of cardiovascular disease
(13) One of general carcinosis
(14) One of tuberculosis

treated for carcinoma of the cervix in 1924 and followed until 1941, when she was lost. In the interval she had a radical mastectomy in 1930 and was reported n five year survival after that tumor in 1935.

The first list of 23 ten year survivals was reported in 1935 (*Medical Times*, April, 1937. 65:193). In 1936, 21 new cases were added; in 1937, 16; in 1938, 15; in 1939, 21; in 1940, 10; in 1941, 24; in 1942, 21: a total of 151 patients who reached the ten year survival period.

Five Year Survivals

This year we are adding eighty-nine new cases, patients who were treated in 1937, and who are living with no clinical evidence of cancer in 1942.

The histological material has been reviewed by a committee composed of:

Dr. William B. Hawkins, Associate Professor of Pathology, Medical School, University of Rochester.

Dr. Sidney C. Madden, Pathologist to the Park Avenue Hospital.

Dr. Walter S. Thomas, Director of the Monroe County Laboratories.

In 1941 the list of five year survivals numbered 513. The addition of eighty-nine cases this year brings the total to 602.

In Table I will be found a tabulation of the situation of the 201 patients to be accounted for from the 1941 report.

The eighty-nine new cases were from the following hospitals:

GENESEE HOSPITAL

	Surgeon
1. Bladder	Paine
2. Breast	Davis

3. Breast	Mitchell
4. Breast	Sumner
5. Colon	Dickinson
6. Sigmoid	Dickinson
7. Fundus	Sumner
8. Cervix	McEachren

HIGHLAND HOSPITAL

	Surgeon
1. Breast	Wooden
2. Breast	Dean
3. Breast	Dean
4. Breast	Jameson
5. Breast	Jameson
6. Breast	Calihan
7. Cecum	Jameson
8. Cecum	Calihan
9. Colon	Calihan
10. Fundus	Jameson

PARK AVENUE HOSPITAL

	Surgeon
1. Breast	Hennington
2. Breast	Sampson
3. Breast	Van Alstyne
4. Breast	Harris
5. Ovary	Van Alstyne
6. Ovary	Lenhart
7. Omentum	Bradstreet
8. Fundus	Olsan

ROCHESTER GENERAL HOSPITAL

1. Breast	10. Sigmoid
2. Breast	11. Skin
3. Breast	12. Cervix
4. Breast	13. Cervix
5. Breast	14. Fundus
6. Breast	15. Fundus
7. Colon	16. Fundus
8. Colon	17. Fundus
9. Lymphglands	

Cases from the Rochester General Hospital are followed through the Tumor Clinic.

ST. MARY'S HOSPITAL

	Surgeon
1. Breast	Costello
2. Breast	Simpson
3. Breast	Simpson
4. Breast	Quinn
5. Colon	Sanders
6. Ovary	Simpson
7. Skin	Hoenig
8. Cervix	Costello
9. Fundus	Simpson
10. Fundus	Simpson
11. Fundus	Simpson

STRONG MEMORIAL HOSPITAL

1. Breast	18. Nasopharynx
2. Breast	19. Rectum
3. Breast	20. Rectum
4. Breast	21. Rectum
5. Breast	22. Rectum
6. Breast	23. Sarcoma
7. Breast	24. Sarcoma
8. Breast	25. Stomach
9. Breast	26. Testicle
10. Breast	27. Cervix
11. Colon	28. Cervix
12. Colon	29. Cervix
13. Hypernephroma	30. Cervix
14. Lip	31. Cervix
15. Lymphosarcoma	32. Fundus
16. Lymphosarcoma	33. Fundus
17. Mouth	34. Fundus
35. Multiple Cancer—Sigmoid & Cervix	

Cases from the Strong Memorial Hospital are followed through the Tumor Clinic, except cases of Uterine cancer, which are followed by the Gynecological Service.

SUMMARY

BLADDER		1
BREAST		33
CECUM		2
COLON		7
HYPERNEPHROMA		1
LIP		1
LYMPHGLAND		1
MOUTH		1
NASOPHARYNX		1
OMENTUM		1
OVARY		3
RECTUM		4
SARCOMA		4
SIGMOID		2
SKIN		2
STOMACH		1
TESTICLE		1
UTERUS		22
CERVIX	9	
FUNDUS	13	
	22	
MULTIPLE CANCER		1
		89

It has been possible to secure detailed reports in the cases of three patients who died during the year 1942.

One patient was 59 years of age when she was examined in the Out-Patient Department of the Strong Memorial Hospital on July 25, 1934. She complained of a breast tumor of five years duration,

which had begun to increase rapidly in size two months previously. She was admitted to the surgical service July 30th. There was a hard mass in the upper half of the right breast, attached to the skin but not to the fascia. The axillary lymphnodes were not palpable, according to one note. In another notation it was recorded "in both axillae are small non-tender soft glands." X-ray study showed no metastasis in the chest.

On July 31st a radical mastectomy was done. The pathological report read; "In the most axillary portion (of the gross specimen) there are many palpable glands." "Five sections show lymph glands with hyperplasia but no evidence of cancer cells." Postoperative x-irradiation was given and the patient was reported a five year survival in 1939.

In 1940 she complained of dyspnea. X-ray study showed shadows, "consistent with neoplastic spread." The patient had lost 20 lbs. in weight. There were recurrent nodules in the scar, in the submaxillary lymphnodes and "perhaps in the thyroid."

An x-ray examination made on October 9, 1941 showed metastases in the upper ends of the femora, the lower ribs and the scapula, with hydrothorax. The radiologist said: "Compared to the examination on October 3, 1940 the changes in the right lung field are not remarkably different * * * It is surprising that there has been no change in a year's time."

She died March 27, 1942 (newspaper item), 7 yrs. 9 mos. and 3 days after her first consultation. At age 59 her life expectation was 14.74 years. She lived 7.75 years or 52.5 percent of her life expectation.

The second was a man, aged 72 years, who was seen in the medical service of the Strong Memorial Hospital in December, 1933, complaining of vomiting. A diagnosis of ventral hernia, benign hypertrophy of the prostate with obstruction and general atherosclerosis was made. He was referred to the surgical service January 19, 1934 and a perineal prostatectomy was done on January 30th.

The histological diagnosis was "carcinoma of the prostate and chronic prostatitis." He was treated with postoperative radium irradiation and was reported as a five year survival in 1938. In August of that year an x-ray film was read and the following note made: "comparing this film with the last previous pelvic film of July, 1937 reveals no change that can be definitely stated to be due to metastasis."

A letter from the patient's son reported his death on January 31, 1942; 8 years and 16 days after his transfer to the surgical service from the medical service. At age 72 his life expectancy was 7.55 years. He lived 8.04 years, or 106.49 percent of his life expectancy.

The third was a case of fibroblastic sarcoma of the thigh. The patient was first seen in the orthopedic clinic of the Strong Memorial Hospital on July 3, 1928, for a rupture of the supraspinatus tendon, the result of a fall. On October 12, 1934, when he was 39 years of age, he was re-admitted for a swelling of the left thigh of three months duration, which had recently increased in size and become painful.

X-ray examination on October 13th showed a large mass surrounding the shaft of the femur. There was no evidence of metastasis to the lung. The lung markings were suggestive of an upper respiratory tract infection.

Biopsy, which was done on October 15th, was reported by the pathologist as a fibroblastic sarcoma of the quadriceps extensor femoris muscle. The tumor was composed of spindle cells with "myriads of mitoses." Deep x-ray therapy was started on October 17th and on November 23d the left leg was disarticulated at the hip. The lymphnodes, including the iliacs, showed no evidence of sarcoma.

On December 31, 1936 there was no x-ray evidence of lung metastasis. On January 24, 1938, he had a left inguinal herniotomy and left orchidectomy. There was still no evidence of metastasis. On February 3, 1938 there was still no x-ray evidence of lung metastasis.

In May, 1938, while intoxicated, he pushed his left hand through the window of an automobile and had a wound in the wrist from which there was considerable hemorrhage. The patient was reported as a five year survival in 1939. On December 1st of that year there was still no evidence of metastasis. He died January 13, 1942 (newspaper notice), 7 years, 2 months and 27 days after his second hospital admission. At age 39 his life expectancy was 28.9 years. He lived 7.24 years or 2.5 percent of his life expectancy. This death cannot be charged definitely to the sarcoma. The fact that no evidence of metastasis was found after repeated search would seem to indicate some other cause of death. *—Concluded on page 204*

CONTEMPORARY PROGRESS

MEDICINE

The Intravenous Use of Digitalis Glycosides

J. S. LaDUE (*Southern Medicine Journal*, 36:124, Feb. 1943) reports the use of the digitalis glycoside lanatoside C (from *Digitalis lanata*) in the treatment of 202 patients with heart disease; the drug was given intravenously in 117 cases and by mouth in 85 cases. It was found that the average dose needed for digitalization is 6.25 mg. (25 tablets) given in twenty-four hours when the drug is given by mouth, but 1.6 mg. or 8 cc. when given intravenously. Moreover, the heart rate of patients with auricular fibrillation is controlled much more rapidly by intravenous administration of the drug. In patients with congestive heart failure associated with normal sinus rhythm, the intravenous administration of lanatoside C usually resulted in decrease in the diastolic heart volume and increase in the stroke output and minute output (as determined by the roentgenokymograph), and therefore an increase in the mechanical efficiency of the heart; and in some instances this occurred within two hours after the intravenous injection. There was, however, no statistically significant difference in the average rate of improvement as measured by the fall in venous pressure and circulation time, rise in vital capacity and onset of diuresis, when lanatoside C was given intravenously as compared with oral administration. It was noted, however, that patients given the drug intravenously "feel better," appear stronger and rest more easily within a few hours as compared with those who are given the drug by mouth. The intravenous administration of lanatoside C had no "detrimental" effect on the patient in any case, and caused a transient toxic reaction (nausea and vomiting) in only 4 cases. The drug should, however, be given "with great caution" to any patient who has been taking digitalis. Its intravenous administration is recommended as "a safe and effective way to achieve rapid digitalization" in most cases of uncomplicated severe congestive heart failure.

M. SOKOLOW and F. L. CHAMBERLAIN (*Annals of Internal Medicine*, 18: 204, Feb. 1943) in their study of lanatoside C (cedilanid) find that it is "a potent therapeutic agent" in congestive cardiac failure with normal rhythm, in auricular fibrillation and auricular flutter. The average digitalizing dose of lanatoside C given by mouth was found to be 4.7 times its maintenance dose, while the average digitalizing dose of *Digitalis purpurea* is 11.3 times its maintenance dose, indicating that the glycoside is absorbed more rapidly than *Digitalis purpurea*. No striking difference in clinical effects was noted between these two preparations when given by mouth. The most important advantage of lanatoside C is its rapid action when given intravenously in a relatively small dose (1.6 mg. or 8 cc.) as compared with the oral digitalizing dose.

COMMENT

Interesting data on a potent therapeutic agent, especially when quick action is necessary.

M.W.T.

The Treatment of Angina Pectoris with Testosterone Propionate

M. A. LESSER (*New England Journal of Medicine*, 228:185, Feb. 11, 1943) has previously reported 24 cases of angina pectoris (20 men and 4 women) treated with testosterone propionate given by injection; in this article he reports 22 additional cases (21 men and one woman) treated by the same method. The testosterone propionate was given in doses of 25 mg. every second to fifth day, the number of injections varying with the case. Some patients showed improvement after the second or third injection, others not until after the eighth or even the tenth injection; some patients required fifteen

to twenty-five injections before treatment could be discontinued. All patients showed definite improvement as regards both the frequency and the severity of the attacks, and all were able to increase their physical activity without precipitating an attack. The shortest period that a patient was free from anginal attacks was two months, the longest eighteen months. Of the 24 patients in the first series, 3 have required a second course of treatment and one a third. It has been found that fewer injections were necessary to control the anginal attacks in the second course of treatment. Four patients in the second group have been tested by means of exercise tolerance tests before and during the course of testosterone therapy. In all these cases, it was found that the amount of "work" done before an anginal attack occurred increased during therapy, while the duration of the pain in the attack diminished. In the use of testosterone proportionate in the treatment of angina pectoris, the author notes that it is important to individualize the treatment on the basis of the patient's response to the drug and "to give an adequately long course of treatment."

COMMENT

Further studies are required to evaluate this therapy.

M.W.T.

Recent Advances in the Therapy of Gout

E. C. BARTELS (*Annals of Internal Medicine*, 18:21, Jan. 1943) reports 38 cases of gout in which treatment was carried out to reduce the uric acid level of the serum and prevent recurrent acute attacks; all but 3 of these patients were seen prior to January 1941. The plan of treatment, which was begun at the Lahey Clinic in 1937, includes a diet low in purine and fat and high in carbohydrate; no alcoholic beverages; administration of cinchophen in decreasing doses. The restriction of purine in the diet "relieves the overburdened purine metabolism mechanism"; the restriction of fat prevents purine retention; the high carbohydrate favors the diuresis of uric acid; the administration of cinchophen also increases uric acid elimination. On beginning treatment cinchophen is given in doses of 7½ grains three times a day for three days a week; periodic determinations of the serum uric acid are made at one to three month intervals and when the uric acid is reduced, cinchophen is given only on two days, then on one day a week; when the serum uric acid reaches normal levels, cinchophen is omitted entirely. The diet is considered "the basis of treatment" and is not fundamentally modified; however, if the serum uric acid continues at a normal level, a somewhat more liberal died is allowed. Since it is recognized that cinchophen may be toxic, patients are instructed as to early toxic manifestations and told to discontinue the use of the drug if any such symptoms develop. The high carbohydrate of the diet and the discontinuance of alcohol also protect the liver against toxic effects of the drug. In the last two years, liver function tests, by

the hippuric acid method, have been made at intervals, and the drug discontinued if the results of the test were below normal. The 38 patients treated have been classified in three groups: The first group includes 18 patients who have had the disease for nine years or more, the average being seventeen years and who followed the diet strictly and took cinchophen in decreasing doses; the second group includes 13 patients who have had the disease seven years or less and who also followed the plan of treatment strictly; the third group includes 7 patients who have had the disease for three to fifteen years, but who did not follow the diet strictly nor take cinchophen regularly and who occasionally used alcohol. In the first group who have been under treatment for an average of two years, the average serum uric acid fell from 8.3 mg. to 6.3 mg. per cent; there were only 3 minor attacks in the entire group as compared with 61 major attacks of gout in a similar period before treatment; 14 of these patients still continue to take cinchophen at least one day a week. In the second group, the average period of treatment has been twenty months; only 4 minor attacks occurred as compared to 23 major attacks in a similar period before treatment; only 5 of these patients still continue to take cinchophen. Even in the 7 patients who have not followed the treatment strictly, some decrease in the average serum uric acid has been noted and the number of major attacks has been reduced by one half. The author urges further trial of this plan of treatment by other physicians.

COMMENT

Cinchophen is dangerous, having a toxic effect on the liver, especially when continued over a period of time. Bartels gives it in decreasing doses and checks frequently with liver function tests. Under these conditions it may have less danger, but for general use it is unsafe. *M.W.T.*

The Water and Electrolyte Distribution in Diabetes Mellitus

F. W. SUNDERMAN (*American Journal of Medical Sciences*, 205:102, Jan. 1943) in his study of the water and electrolyte distribution in diabetes, has found that if glucose (75 gm.) without insulin is given to patients with severe diabetes, but without ketosis, there is a transfer of water, sodium chloride and glucose from the tissues to the circulating blood; the total amount of these components in the serum is increased, although the concentration of the electrolytes is not necessarily increased and may be decreased. In depancreatized diabetic dogs with ketosis, it was found that there is "a continued transfer" of water, sodium chloride and glucose from the tissues to the circulating blood. When insulin is given to diabetic patients with high blood sugar, these processes are reversed, and a transfer of water and electrolytes from the serum into the tissues takes place. This action of insulin in "readjusting the partition of water and electrolytes" in diabetes is evidently an important factor in its "varied and complex effects." In the treatment of the dehydration of diabetic coma, the administration of insulin, in addition to saline solutions, is essential.

SURGERY

Posterior Pituitary Extract in Anesthesiology

B. A. GREENE (*Annals of Surgery*, 116:898, Dec. 1942) reports the use of posterior pituitary extract in surgical cases as an aid in the induction of anesthesia. It has been used chiefly to "support the peripheral circulation" in spinal anesthesia especially if high spinal anesthesia is used in asthenic individuals; and in both general and spinal anesthesia when contraction of the intestine is essential for "the ease of operation." In supporting the peripheral circulation in spinal anesthesia, the combination of posterior pituitary extract and ephedrine has been found to be more effective than either drug alone. The author employs pituitrin or pitressin 5 units plus ephedrine sulfate 25-50 mg. as premedication for operations under spinal anesthesia when it is essential to have "a maximally contracted intestine or uterus," or when there is likely to be a severe fall in blood pres-

sure, as in high spinal anesthesia in an asthenic patient. This method should not be used in patients with thyrotoxicosis or pre-eclampsia. A desirable "side-effect" of posterior pituitary extract in surgical patients is that it induces water retention, preventing water loss and dehydration. Its use is not indicated in patients with heart failure, hypertension, coronary artery disease, epilepsy, pre-eclampsia or nitrogen retention. The use of pituitrin may cause a facial pallor due to vasoconstriction; this is not dangerous and does not require treatment, but may be relieved by the subcutaneous injection of 3 to 5 cc. coramine. Posterior pituitary extract is not used during cyclopropane anesthesia because both have a parasympathicomimetic action on the respiratory tract. If the use of the extract is desirable to secure bowel contraction a combination of ether and cyclopropane may be employed. To secure the advantages of posterior pituitary extract in surgery without untoward reactions "requires individualization of patients and a detailed knowledge of drug behavior and their antagonists."

COMMENT

The splendid active cooperation of the surgeon and the modern highly trained and expert anesthetist has done much to make possible the tremendous achievements of present-day surgery. The internist has added his bit. We are now witnessing in many cases the near miracle of the rehabilitation of the poor risk patient. He is now being made safe for the operation. The interest of the anesthetist has gone beyond the consideration of the selection and administration of the anesthetic. He estimates the risk and outlines pre-operative measures. He follows the patient's immediate postoperative clinical course, as conscientiously as he follows the patient's condition on the operating table. He devotes himself not only to the establishment of the ideal anesthetic state but he is prepared to go much farther by the judicious use of certain drugs. In doing so he is able to make the surgeon's work more easily accomplished and to forestall many of the complications likely to affect the postoperative course.

In this connection the author has written a comprehensive and altogether authoritative treatise on the action of, indications for, and advantages to be gained in using posterior pituitary extract, either alone or in combination with ephedrine sulfate. Much of what he says can be confirmed clinically by your commentator. Of course, patients must be individualized. Routine administration without complete knowledge of all the factors concerned in a given case is not only unwise but may result badly. When the author talks of correlation of facts which anesthesiologists should carry into the operating room as the "practice of internal medicine in the operating room" he has "hit the nail right on the head."

T.M.B.

Pulmonary Embolism

W. J. POTTS and SIDNEY SMITH (*Archives of Surgery*, 46:27, Jan. 1943) note that any study of pulmonary embolism "must concern itself primarily" with the problem of venous thrombosis. The spontaneous venous thrombosis that occurs after operation in surgical patients and in medical patients at rest in bed is not of the same type as that due to local trauma or infection, in which there is inflammation of the wall of the vein, i.e., phlebitis; postoperative venous thrombosis is best designated by the term used by Ochsner, phlebothrombosis, as any inflammatory process in the wall of the vein is secondary and not the primary cause of the thrombus formation. It is generally considered that slowing of the venous circulation is the primary cause for postoperative phlebothrombosis or that occurring in cases of fracture requiring prolonged immobilization. The authors' experiment showing that thrombosis will occur in the femoral vein of a dog after double partial ligation tends to confirm this theory. The forced inactivity following operation—especially inactivity of the muscles of the legs and the abdomen—is the primary factor in venous stasis in the pelvic and femoral veins and their tributaries. Other factors contribute, such as tight abdominal binders, cardiac weakness, shallow respiration, low blood pressure, and in some cases dehydration and the use of drugs that depress the circulation, obesity, or cachexia. In 1928 one of the authors (W.J.P.) adopted a routine of breathing and leg exercises for all adult surgical patients, "unless their condition was such that it seemed inadvisable." Nurses were instructed to have the patient "take fifteen deep breaths each morning and evening, and with each breath actively flex the legs." In 837 surgical cases in which this routine was carried out, there was no case of phlebothrombosis, pulmonary infarction, or fatal pulmonary embolism. In 150 surgical cases in which this routine was not carried out, there were 4 cases of phlebo-

thrombosis with one fatal pulmonary embolism and one case of pulmonary infarction without evidence of phlebothrombosis. In 124 cases of fracture requiring immobilization of one or both legs, there were 5 cases of phlebothrombosis, of which 4 were followed by pulmonary infarction, and one case of pulmonary embolism found at postmortem examination, in which the origin of the emboli could not be determined. These findings indicate that routine postoperative breathing and leg exercises are at least "of some value" in lessening the incidence of phlebothrombosis and pulmonary embolism. Such a routine has "a negative virtue" in that it does no harm; it has been observed that the patients who carried out these exercises in bed felt better on getting up than those who had been entirely inactive.

COMMENT

The factors involved in the occurrence of postoperative thrombophlebitis or phlebothrombosis are many and varied. Clinicians and surgeons alike are deeply concerned with its unfavorable effect on morbidity and mortality. Current medical literature abounds with articles dealing with clinical and experimental research in this field. Issues have been clarified and procedures both preventive and remedial have been to some extent standardized. It is doubtful if this complication can be entirely eliminated but certainly its incidence is decreasing. I believe one can say that its untoward effects both immediate and remote is being minimized by modern methods of treatment.

The authors in this article report on their success in preventing phlebothrombosis by demanding that the patient deliberately and periodically breathe deeply. Furthermore they make sure of circulatory activity by requiring the nurse in cooperation with the patient to secure activity of the muscles of the legs and abdomen. It is good to have emphasized again in this impressive manner the necessity for active mobilization of the patient, and the value of intelligent nursing. Let us remember, however, that there are many other difficult entities, all highly potent etiologic factors, which clamor for recognition and relief. *T.M.B.*

Human Red Cell Concentrate for Surgical Dressing

J. J. MOORHEAD and L. J. UNGER (*American Journal of Surgery*, 59:104, Jan. 1943) report the use of human red cell concentrate, discarded in the processing of blood plasma, as a surgical dressing. It was first used in a case of a knee joint arthrotomy that had been torn apart by a delirious patient; the interior of the joint was fully exposed as the incision was approximately 9 inches long. The red cell concentrate, of semiliquid consistency, was poured into the joint cavity until it overflowed. A massive gauze and cotton dressing was applied, and the same procedure repeated on alternate days. After several dressings coaptation by means of flannel adhesive was begun; the wound healed without excessive granulations and the knee-joint was movable. The second case treated was one of extensive burns of both thighs which had failed to heal, and showed a profuse purulent exudate. One thigh was first treated by application of the red cell concentrate after cleansing with saline, under intravenous anesthesia. The result was so satisfactory that the other thigh was treated in the same way. Granulations were "smooth and healthy" and extensive skin grafts were subsequently successfully applied. Several other cases, including burns, postoperative infections and resistant ulcers of the leg (2 cases) have since been treated with the red cell concentrate with equally good results. The red cell concentrate dressing has several definite advantages: Its application is painless; it forms "an impervious veneer," preventing both fluid loss and re-infection; purulent exudate subsides promptly; granulations are smooth and healthy; and it permits the utilization of a product that is otherwise wasted. As the blood for plasma is taken from healthy donors and the plasma is prepared "under sterile precautions," the resulting red cell concentrate is sterile, as has also been demonstrated by bacteriological examination. Many problems in regard to the use of red blood cell concentrate as a surgical dressing are still under investigation, such as the best method of applying this substance—as a fluid or as a dry powder —and the possibility of the addition of sulfa drugs or other antiseptics. Several theories are suggested to explain the value of this type of surgical dressing: It may be that it acts merely as an occlusive, preventing oozing and reinfection; the high protein content of the cells may be a factor; the red cells may contain some specific element in concentrated form that is of value; or the products of destroyed and disintegrated cells may stimulate cell reproduction and the healing process. If the initial results with this method are

substantiated by further trial, "this hitherto discarded product will be of considerable value in treating war and other casualties."

COMMENT

The authors in this contribution present their happy experiences in the use of red cell concentrate in the dressing of surgical wounds. Their results, obtained in several clinical surgical problems, arouse the hope that maybe they have something. Surely one swallow does not make a spring. Yet this method is not associated with risk and the material is inexpensive; in fact, as the authors state, it enlists the beneficial effects on wounds of a substance heretofore discarded. It is to be hoped that the method will be given further time and study and that the material may be made readily available to all wishing to test its efficacy.

To the neophyte and uninitiated, the astounding array of remedial agents and the number and complexity of the rituals proposed for the dressing of surgical wounds are challenging, but at the same time confusing. Time and sound surgical judgment with an abundance of common sense can be counted upon to establish standard practice and procedure. *T.M.B.*

A New Method of Skin Protection for Ileostomies and Colostomies

DAVID PRESMAN (*Surgery*, 13:322, Feb. 1943) describes a new method for the protection of the skin in the immediate postoperative period after ileostomy or colostomy before a suitable bag can be fitted. It is at this time that constant irritation of the skin surrounding the opening by the fecal material may cause maceration with resulting "pain and discomfort." Various ointments have been used as recommended by standard textbooks, but without satisfactory results. Recently the author tried vinylite resin, as suggested by DeBakey and associates for "protection of the operative field" (*Surg., Gynec. & Obst.*, 74:499, 1942). But it was found that even this did not withstand "the continual washing effect of the fecal material." However, mixing collodion with vinylite resin was found to give an impermeable film, which could be easily applied. The formula is: Vinylite resin 25 gm., acetone 100 cc., collodion 25 cc. This solution is applied to the skin around the incision just prior to the opening of the enterostomy; it may also be applied to the exteriorized bowel without any ill effect. Ten to twenty minutes are allowed for the solution to dry and form "an adequate film," before opening the bowel. The solution is reapplied without removing the previous coats as often as is necessary, "depending upon the consistency and amount of the fecal drainage," varying from several times daily to once every few days. Since using this solution, the author has not noted skin irritation in any type of enterostomy; this solution, he notes, may also be used for skin protection in cases of fecal fistula and infected wounds that drain profusely.

COMMENT

The patient facing an operation which will leave him with an intestinal fistula has many misgivings. In fact, he must be sold on the proposition. He has been told of the unfortunate experiences of those undergoing similar operations. Today there is less reason for a patient to suffer discomfort in such cases than ever before. An elaborate routine has been outlined to guide such patients in the care of the wound, arrangement of their diet and regulation of the fecal movement, which if adhered to will allow the patient to live in apparent and reasonable comfort.

The author in this article suggests the use of a special formula containing vinylite resin acetone and collodion as a preparation for local application to prevent skin irritation about a fistulous opening. This is a welcome offering. He relates his successes in its use. It certainly sounds promising and I am sure will be tried by most of us and I hope it will eventually become a part of our permanent armamentarium.

T.M.B.

UROLOGY

The Obstructive Factors in Renal Infections

J. C. BIRDSALL (*Journal of Urology*, 49:55, Jan. 1943) maintains that the finding of pus in the urine is an indication of urinary tract infection, and in the absence of localizing symptoms, the site of infection must be determined by a complete urological examination. Such studies show that symptomless pyuria often represents upper urinary tract infection, and that such upper urinary tract infection is the result of urinary stasis. In a study of 833 cases of urinary tract obstruction, 72.3 per cent of 326 cases of nephroptosis

(with angulation or kinking of the ureter), 83.3 per cent of 270 cases of renal and ureteral calculus, and 85 per cent of 160 cases of hydronephrosis were infected; in addition there were 77 cases of pyonephrosis, pyelitis and pyelonephritis. In regard to the 162 cases of definite urinary obstruction that did not show infection, the author believes that "time is the answer," as in cases of residual urine in prostatic hypertrophy; urinary stasis without infection "is always a potential field for bacterial invasion;" and therefore the early diagnosis and early correction of obstructive lesions of the urinary tract "is the answer in the treatment of renal infections."

COMMENT

Many years ago I published two articles, one on "Blood in the Urine" and the other on "Pus in the Urine," in which I emphasized that each must be traced to its source and cause. The terms "symptomless blood" and "symptomless pus" are very misleading misnomers. Blood and pus are symptoms in themselves and of themselves. The source and cause are the great desiderata. There is a vicious circle in pus of stasis, decomposition, obstruction and infection. This sequence is always present in advanced cases and has its forerunners in early cases. One of my cases is in point as to watching for the cause. Months of slowly increasing pus, without the usual causal bacteria and without deleterious effect on the patient, finally showed very large numbers of tubercle bacilli. Nephrectomy cured. It pays to watch these patients.
V.C.P.

Resolution of Phosphatic Urinary Calculi by the Retrograde Introduction of a Citrate Solution Containing Magnesium

H. I. SUBY and F. ALBRIGHT (*New England J. Med.*, 228:81, Jan. 21, 1943) have previously reported a study of the use of isotonic citrate solutions for dissolving phosphatic urinary calculi *in situ*, but the solution originally employed was found to be too irritating to the mucosa of the urinary tract for practical clinical use. Further experiments have shown that the addition of magnesium reduces the irritation, and recently a citrate solution containing magnesium has been employed for retrograde introduction in cases of phosphatic urinary calculi. This method is effective only if the stone is a phosphatic stone, i.e., composed of calcium phosphate with or without calcium carbonate or magnesium ammonium phosphate or both; this can best be determined by the x-ray appearance of the stone. For exact localization of the stone in relation to the renal pelvis, and for following the dissolution of the stone, pyelography with air, rather than with an opaque medium, is the best method. The object of the treatment is to keep the solution in contact with the stone as much as possible. The apparatus to be employed varies with the circumstances of each case, and whether the solution is to be introduced through a simple nephrostomy tube, two nephrostomy tubes, a ureteral catheter and a nephrostomy tube, or one or more ureteral catheters, also whether the solution can be drained out through the bladder without causing bladder irritation. If the stones are in the kidney calices, the solution should be introduced under a sufficient amount of pressure to ensure its getting around all the stones, but intermittently so that pyelonephritis is not produced by back pressure. This method of treatment has been used in "approximately 20 patients." Seven illustrative cases are reported; in 6 of these the stone was partially or completely dissolved; in 2 of these cases the solution was introduced through ureteral catheters and in 4 through nephrostomy tubes. In the seventh case, the treatment was unsuccessful, because of the presence of "a thin coating of unidentified material possibly old blood clot," which prevented the solution from coming into direct contact with the stone.

COMMENT

Removal of calculi by dissolving them is a very inviting, almost an alluring field. The old questions survive in this fine study. Does the solution irritate? It has done so and may do so again. Our mucosae are not adapted to such chemistry as dissolving stones because they respond to the same chemicals more or less unfavorably. Is the kind of stone important? It is. Phosphatic stones are the most favorable but how shall the composition be assured? X-ray is a help but by no means a finality. Pyelography with air is open to challenge, because in the past injection of air led to disaster and will do so again. In illustration of the risk of injecting fluids into the pelvis is an experience of mine. After the use of 2 per cent boric acid water a nurse developed the most profound and prolonged urinary chill and fever that

I had ever seen before or have ever seen since. Fortunately she survived and did not seem the worse for it all.

V.C.P.

The Treatment of Cancer of the Prostate with Castration and the Administration of Estrogens

R. CHUTE and A. T. WILLETS (*New England Journal of Medicine*, 227:863, Dec. 3, 1942) report the treatment of 37 patients with carcinoma of the prostate by surgical castration, administration of estrogens, or a combination of the two, from July 1941 to July 1942. This treatment is employed only in cases too far advanced for radical surgical removal of the prostatic growth and with metastases. Castration alone was done in 2 cases; 8 patients were treated with the synthetic estrogen, stilbestrol, given by mouth or by injection, and in the remaining 27 patients, the effects of castration were "accelerated" by the administration of the estrogen. The results with stilbestrol alone were the same as those with castration and stilbestrol, but persisted only as long as stilbestrol was given. Only one patient in the series failed to derive some benefit from the treatment. Three of the patients died during the year. The most striking effect of the treatment was the prompt and lasting relief from the pain of metastases; there was almost invariably a gain in weight and strength, improvement in appetite and "a feeling of well-being"; there was also a diminution in the size of and softening of the prostate in all but 6 cases. In 13 patients who were unable to urinate owing to prostatic obstruction, treatment with castration and stilbestrol relieved the obstruction in 9. The stilbestrol therapy produced some "minor unpleasant effects" which soon disappeared when the drug was stopped or the dose reduced, but there were no "dangerous or harmful effects." From these results and those reported by Higgins and others, the authors conclude that "this type of therapy gives a great deal of promise in the treatment of inoperable carcinoma of the prostate."

COMMENT

Cases of prostatic cancer too advanced for ablation and with secondary deposits are far removed from favorable response to any measures. Apparently castration takes away one of the stimuli from the gland and hence aids in quieting it although only temporarily. Newer products, such as stilbestrol, naturally have influence only as long as they are administered. In this respect they duplicate the well established facts about the various older glandular secretions. In health their activity is constant because the glands put them forth with equal constancy. When the glands begin to fail therapy by substitution, like the secretion itself, must effect a constant restoration of the lack and a continuous presence in order to achieve the original balance. Once begun these preparations do not restore health to their original sources but make up the shortage. That is why such aids as stilbestrol must be steadily and not intermittently exhibited in prostatic cases.

V.C.P.

B. G. CLARKE and H. R. VIETS (*Journal of the American Medical Association*, 121:499, Feb. 13, 1943) report a case of cancer of the prostate in a man, 69 years of age, whose chief complaint was pain in the back and legs and difficulty in walking; the prostate was hard and enlarged, and the diagnosis of malignancy was subsequently confirmed by needle biopsy. Treatment with diethylstilbestrol, at first by injection and later by mouth, completely relieved the symptoms so that the patient could return to work. Prior to treatment roentgenologic examination had shown osteoplastic metastases in the first three lumbar vertebrae, and studies of the cerebrospinal fluid had indicated almost complete "block" of the spinal canal at this level; after relief of symptoms, the roentgenological appearance of the vertebral lesion remained much the same, but the spinal fluid findings indicated that the "block" had been relieved. As long as the patient continued to take diethystilbestrol, he was free from symptoms, but three months later symptoms recurred and the "block" of the spinal canal was more pronounced than before. Bilateral orchidectomy completely relieved the symptoms in five days, and spinal "block" had completely disappeared two weeks after operation.

COMMENT

It is impressive and inspiring to note that in diethylstilbestrol we have a preparation which does influence cancer, at least of the prostate, profoundly and that studies are increasing in number with favorable reports. In the MEDICAL TIMES *of Dec. 1942, p. 436, I commented on the case of Heckel and Kretchmer who found on biopsy that the cancer showed widespread hydropic degener-*

ation and vacuolation. If these changes are common in cancer then x-ray and radium are equalled in their actions on cancer. *V.C.P.*

Preventive Therapy in Recurrent Urinary Lithiasis

E. H. DROEGEMUELLER (*Illinois Medical Journal*, 83:34, Jan. 1943) states that "the fundamental cause of urinary calculus formation is unknown," and hence the complete prevention of urinary calculi is impossible. However, certain conditions that favor the formation of urinary calculi are known, and the elimination of these conditions in patients who have had stones reduces the incidence of recurrence. "The first step" in the prevention of recurrence in such cases is the complete removal of the primary stone or stones. Stasis and infection may not be important factors in primary stone formation, but they are of definite importance in determining the incidence of recurrences. Hence the treatment of any condition causing stasis in the urinary tract and of urinary tract infection is indicated after the removal of the primary stone; in addition all "readily accessible" chronic foci of infection should be removed. Increasing the urinary output by drinking large amounts of water and regulating the reaction of the urine toward the acid or alkaline side according to the nature of the primary stone tend to prevent the precipitation of various solutes and thus the formation of calculi. The composition of all urinary calculi that are either passed spontaneously or removed should be determined, and the urinary reaction regulated accordingly. As most urinary calculi are composed of calcium and magnesium salts, an acid reaction of the urine should usually be maintained as this increases the solubility of such salts. The author is of the opinion that "the present fad of 'alkalizing' for all ailments of mankind" by taking alkaline drugs or large quantities of citrus fruits that leave an alkaline ash may be considered "a definite factor favoring the formation of urinary calculi." Considerable evidence has been accumulated indicating that vitamin A deficiency favors urinary stone formation, but the value of giving this vitamin in the form of oily concentrates is questionable as a preventive measure against recurrent calculi. However, it is better to provide an adequate vitamin A intake until the problem is completely solved. As prolonged recumbency, as in paralytic conditions or in the treatment of certain fractures, predisposes to calculus formation, "all possible prophylactic measures," as indicated above, should be employed in such cases. Hyperparathyroidism and gout are metabolic disorders that predispose to the formation of urinary calculi; in these diseases, the calculi apparently "represent a manifestation of a fundamental metabolic disorder."

COMMENT

It is true that the exact and constant cause of urinary lithiasis is unknown precisely as it is unknown in other stone-formations. Animals may have them. Nevertheless there is a definite sequence always present in one degree or another: obstruction, stasis, decomposition, precipitation, infection, multitudes of crystals and finally stone. That metabolism is potent is beyond question. Infection is very productive because it enhances the other causal elements. *V.C.P.*

PEDIATRICS

The Use of Evaporated Half-Skimmed Milk in Infant Feeding

C. E. SNELLING (*Canadian M. A. J.*, 48:32, Jan. 1943) reports the use of a half-skimmed evaporated milk that has recently become available in infant feeding; when this evaporated milk is prepared with an equal amount of water, the fat content is 2 per cent. In 73 infants a formula made with this partially skimmed evaporated milk was used and results compared, in relation to gain in weight and occurrence of feeding disturbances, with those in infants given the usual formula of ordinary evaporated milk, water and dextri-maltose of approximately the same caloric content. In the group on the special formula the average daily gain in weight was 0.92 oz. daily as compared with 0.62 oz. in the control group; 60 per cent of the infants were above their birth weight at ten days as compared with 44.5 per cent of the controls; only 12 per cent of the infants on the skimmed milk required further modification in feeding for a few days and 19 per cent of the controls. None of the infants in either group developed severe dietary disturbances. Four infants, not

included in this series, were first given the usual formula, but when they lost or failed to gain weight and showed loose stools, regurgitation or vomiting, were changed to the skimmed milk, with satisfactory gain in weight and relief of the digestive disturbances. The partially skimmed milk formula has also been used with good results in private practice, especially for infants who did not do well on the usual evaporated milk formula.

COMMENT

Clinical evidence has repeatedly pointed to the fact that G.I. disturbances in early infancy are most frequently caused by the fat element. All of us have noted the large amount of fat contained in the stools of concentrated evaporated milk formulae. The work of Levine and Gordon showing that prematures do not tolerate fats well, but do handle proteins and sugars as well as full term infants, should be borne in mind. They used a half skimmed dried milk with excellent results. Now, Snelling proves that a half skimmed evaporated milk is superior, from a nutritional standpoint, to the whole evaporated milk in the feeding of full term infants.

Babies, and mothers, too, will be happier if we stop trying to make fat, roly-poly babies, by high fat feedings, and resort to techniques designed to meet the caloric needs of individual babies. Remember that only about 25 per cent of the calories needed should be in fats. I hope that it won't be long before a half skimmed evaporated milk will be more available, and that Uncle Sam can have the rest of the fat to make butter. O.L.S.

Is Breast Milk Adequate in Meeting the Thiamine Requirement of Infants

E. M. KNOTT, S. G. KLEIGER and F. W. SCHLUTZ (*Journal of Pediatrics*, 22:43, Jan. 1943) report a study of the thiamine content of the breast milk of nursing mothers and of the urinary excretion of thiamine and pyrimidine in infants fed on breast milk alone and those with supplementary feedings. In 33 women "past the neonatal period," whose infants received no supplementary feedings, the average thiamine content of the breast milk was 20.1 μg per 100 ml. of milk. In 8 women whose infants required supplementary feedings the average thiamine content of the breast milk was 9.3 μg per 100 ml. In 9 infants fed on breast milk alone the average excretion of thiamine in the urine was 3.0 μg during the first four hours and 6.5 μg during the second four hours; the average excretion of pyrimidine was 9.0 μg during the first four hours and 8.4 μg during the second four hours. The administration of a test dose of thiamine "did not affect the results materially." The results indicate that while the infants were not depleted of thiamine, they were not receiving optimal amounts, or they would not have retained the test dose. The thiamine content of the breast milk in these cases was about 20 μg of thiamine per 100 ml., which gave a daily intake of 150 to 210 μg, according to the size of the infant. In 8 cases in which the mother had received vitamin B_1 supplements, or supplementary evaporated milk formulas had been used, the infants excreted 11.6 μg of thiamine and 12.8 of pyrimidine during the first period, and 41.6 μg of thiamine and 20.1 μg of pyrimidine during the second period after the test dose of thiamine. This indicated an adequate intake of thiamine. From these findings the authors conclude that young infants require approximately 200 μg of thiamine daily, and in order to supply this the mother's breast milk should contain 20 μg or more of thiamine per 100 ml. They suggest that 40 μg of thiamine per kilogram body weight may be considered "a practical standard" for the ordinary thiamine requirement of young infants.

Prolonged Use of a Sulfonamide Compound in Prevention of Rheumatic Recrudescences in Children

A. E. HANSEN, R. V. PLATOU and P. F. DWAN (*American Journal of Diseases of Children*, 64:963, Dec. 1942) report the use of a sulfonamide in 53 rheumatic children for a total of 78 season-cases to determine the value of these drugs in the prevention of acute recurrences. In most cases sulfanilamide was used, in a few cases sulfathiazole or sulfadiazine. At first small doses of the drug were given, in order that any signs of toxicity could be detected, but the usual dose was 1 to 3 gm. daily in divided doses. As controls, 32 children of the same age group (three to sixteen years) with "essentially similar histories" as regards previous rheumatic attacks, degree of cardiac involvement and social and economic status, were kept under observation for three to four seasons. Only 2 of the children in the treated group developed "a rheumatic flare-up" during the period of treatment, and in one instance this oc-

curred within six days after administration of sulfanilamide was begun. In the control group, 17 of the 32 children developed a total of 21 acute rheumatic recurrences; 8 of these recurrences were considered moderately severe, 7 were mild, and chorea occurred in 6 instances. The sulfonamide had an apparently favorable effect on the degree of heart involvement in regard to cardiac enlargement and functional classification; changes in the electrocardiogram were "suggestive" of improvement in several patients, but this could not be attributed to the action of the drug alone. In no case was there any evidence of an unfavorable effect of the drug on the heart. The general clinical condition of the treated patients seemed better than the controls, although there was no difference noted in the incidence of upper respiratory tract infections. There were very few toxic manifestations due to the sulfonamides; in only one instance was it necessary to discontinue the drug, because of a drop in the total leukocyte count to 1,700. The results obtained in this series of cases are in agreement with those reported by others and "appear to justify" further study of the value of sulfonamide compounds in preventing acute rheumatic recurrences, especially since rheumatic infection is "one of the major causes of disability and death in children of school age in the temperate zone." All children must be kept under careful observation throughout the period of treatment.

Galactose Tolerance Test in Endocrine Disorders in Children

R. WAGNER (*American Journal of Diseases of Children*, 65:207, Feb. 1943) reports the use of the galactose tolerance test in 49 children with various endocrinopathies. The conditions found in these patients were classified as: hypogonadism, obesity (exogenous, constitutional and "Fröhlichlike"), cryptorchidism (with or without "endocrine features"), transitory infantilism, amenorrhea and irregularities of menstruation, acne of puberty, alopecia areata, gigantism, pituitary dwarfism and hepatomegaly of unknown cause. In making the test 40 gm. of galactose in 400 cc. of water flavored with lemon juice were given after a fasting period of fourteen hours or more. The galactose level of the blood was determined at five, fifteen and thirty minutes, one hour, two hours and, in a few cases, three hours. Dextrose tolerance tests were also made in most of these subjects; these curves were definitely "flat" except in 4 subjects. With the galactose tolerance test, however, the curves were abnormally flat only in patients with hypogonadism, and abnormally high only in pituitary dwarfs; they were within normal range in other cases. Of the patients with high galactose tolerance curves, all but one had flat dextrose tolerance curves. The author concludes that there is a definite difference in the response of the organism to the two sugars —dextrose and galactose; and that in cases of the type studied the galactose tolerance test "appears to have a greater diagnostic value" than the dextrose tolerance test, especially in the differentiation between pituitary dwarfism and hypogonadism.

Burn Encephalopathies in Children

LAURETTA BENDER (*Archives of Pediatrics*, 60:75, Feb. 1943) states that in her experience at Bellevue Hospital she has seen cases of psychopathic behavior disorders resembling those of chronic encephalitis, in which there was no history of an acute encephalitis, but a history of a severe burn early in life. A study of the various types of encephalitis observed in children shows that in encephalitis of "probable virus origin," such as encephalitis lethargica, the neurologic signs and behavior disturbances tend to progress even after puberty into adult life, but that in encephalitis of pyogenic origin — meningitis, pneumonia, otitis media, etc.—the symptoms progress up to puberty but then show a regression. The encephalopathies due to burns resemble the latter type in this respect. Children who sustain severe burns in early childhood may show "unmistakable" symptoms of an acute encephalopathy that may terminate fatally or regress but with resulting cortical damage. Other children may not show definite acute symptoms but may develop neurological symptoms and behavior disorders subsequently. Illustrative cases are reported. Such cases emphasize the importance of the proper treatment of burns in children.

Medical BOOK NEWS

Edited by
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All books for review and communications concerning Book News should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn, N. Y.

Psychosomatic Medicine

Psychosomatic Medicine. By Edward Weiss, M.D., and O. Spurgeon English, M.D., Philadelphia, W. B. Saunders Company, [c. 1943]. 678 pages. 8vo. Cloth, $8.00.

IN view of the renaissance of interest in the subject, this is a most timely book, and it should complete the demolition of any pre-existing artificial barriers between medicine and psychiatry. Few will read it without both pleasure and profit.

There is nothing particularly new about psychosomatic medicine except its present recognition and the rekindled interest it is receiving. Previously it was known, perhaps somewhat vaguely, as "The Art of Medicine."

In 1886 Birnheim talked of psychobiology. As the present authors say, psychosomatic medicine is as old as the art of healing itself; however, their book not only stresses the necessity of visualizing the patient as a human being rather than merely as a physiological mechanism, but what is of more practical importance, it describes the best method of accomplishing this purpose.

The chapters on sexual functions and disorders are well done and in view of the present rather unbridled enthusiasm for estrogenic therapy, the author's discussion of the menopause and the climacteric is alone worth more than the price of the book.

LAURENT FEINIER

Richard Morton
1637 ~ 1698

Classical Quotations

● **It often happens that these kind of Consumptive People, even when they are looked upon as deplorable by others, flatter themselves extremely with the hopes of their Recovery; so that the same Persons that at Night used to think themselves irrecoverable, and tell those about them they should certainly die, yet the next Morning they always pluck up their Courage, and in vain entertain the hopes of living long.**

Richard Morton

***Phthisiologia*, 1689.**

Control of War Diseases

Silent Enemies. By Justina Hill. New York, G. P. Putnam's Sons, [c. 1942]. 266 pages, 8vo. Cloth, $2.50.

THIS book "is the story of the scientific progress that has been made and is being made to protect our armed forces and civilians from the infections which have always been associated with war." Though intended for the general reader, the doctor will be pleased to have brought to his attention many minor facts regarding the diseases discussed which may have been long forgotten, and some which are new.

The book is right up to date, for it tells of the fall of Bataan being due not to the lack of ammunition but because quinine and atabrin gave out.

Although books of this type are intended for the lay reader, he or she must be an exceptional layman to grasp the significance of all that is presented. A larger audience could be reached, and a greater educational influence exerted if the subject matter was presented in simpler form. Those with the proper background, however, will find this book interesting and informative. S. R. BLATTEIS

New Edition of Speed's Fractures

A Textbook of Fractures and Dislocations. By Kellogg Speed, S.B., M.D. Fourth edition. Philadelphia, Lea & Febiger. [c. 1942]. 1,106 pages, illustrated. 8vo. Cloth, $12.50.

"COMPLETE and up to the minute" is a brief analysis of this book. The chapter on mass injuries, such as occur during war times, is timely and gives in

detail the most modern methods of treatment such as proved useful and practical at Pearl Harbor.

The illustrations are numerous and adequately descriptive. Taken as a whole, this book will make a most valuable addition to the library of any surgeon.

N. H. RACHLIN

The Antihormone Problem

The Antigonadotropic Factor. By Bernhard Zondek & Felix Sulman. Baltimore, The Williams & Wilkins Company, [c. 1942]. 185 pages. 8vo. Cloth, $3.00.

THIS new monograph on the antigonadotropic factor presents much original experimental work carried out in the Laboratory of the Department of Obstetrics and Gynecology of the Rothschild Hadassah University Hospital and in the recently founded Hormone Research Laboratory of the Hebrew University, Jerusalem. In addition to the authors' experimental work on the subject they give a general survey of the antihormone problem and cover the literature thoroughly. This book is well written and has an extensive bibliography. It should be read carefully by everyone who is interested in endocrinology and gynecology.

WM. SIDNEY SMITH

Popularizing Blood Transfusion

Adventure in Blood Transfusion. By Bertram M. Bernheim, M.D. New York, Smith & Durrell, Inc., [c. 1942]. 182 pages, 8vo. Cloth, $2.50.

THIS book on blood transfusion is written for laymen and at a time when popular interest in the subject is at a peak. Inasmuch as Dr. Bernheim has made some important contributions to the development of the field, his book is likely to be of interest to students of medical history and to specialists in the field of blood transfusion, who will appreciate and sympathize with his struggles in those earlier days. It certainly is a far cry from the difficult, prolonged, and uncertain struggle that a blood transfusion was in those days, when the procedure took hours, required the sacrifice of an artery of the donor and a vein of the recipient, with both patient and donor exposed to the possible transmission of infection, to the present simplified citrate transfusion which can be performed by any physician expert at venipuncture.

The book is written in narrative style, and on the whole is pleasant and interesting reading. Despite certain shortcomings, the book has merit as a contribution to the history of blood transfusion.

A. S. WIENER

Autonomic Nervous System

Autonomic Regulations. By Ernst Gellhorn, M.D. New York, Interscience Publishers Inc., [c. 1942]. 373 pages, illustrated. 8vo. Cloth, $5.50.

LATELY several excellent books have appeared which deal with the autonomic nervous system. This is readily understood in view of the increased appreciation of the importance of this system to the normal functioning of the various organs of the body. However, whereas the material in other books has been presented from the standpoint of the clinician, the author of this book has approached the problem primarily from the standpoint of the physiologist. The book concerns itself largely with the influence of the autonomic system on such physiologic conditions as anoxia, asphyxia, hypoglycemia, etc. Experimental results obtained by various investigators are thoroughly discussed and evaluated.

The book is well written and the material adequately presented. An excellent and comprehensive bibliography enhances its value. As a reference book it will repay all those who add it to their library.

J. L. ABRAMSON

A Way to Become a Surgeon—Take a Surgical Residency

The Making of a Surgeon. A Midwestern Chronicle. By Ernest V. Smith, M.D. Fond du Lac, Wisconsin, The Berndt Printing Company, [c. 1942]. 344 pages, illustrated. 8vo. Cloth, $3.00.

THIS is essentially an autobiography of the author. The first 94 pages are devoted to the experiences of childhood and youth. From Chapter VI, Through Medical School on Nothing a Year, the autobiography becomes more interesting and pertinent. He became identified with Dr. Frank S. Wily in a Clinic at Fond du Lac, Wisconsin, and this book is the culmination of 25 years of this satisfactory partnership. The final chapter on How Surgeons Are Made follows the doctor's experience on the necessity for surgical residencies. The author has appended a Table of Surgical Cases for Twenty-Five Years, From Our Clinic Records.

JOSEPH RAPHAEL

Biochemical Text

A Textbook of Biochemistry. By Roger J. Williams, Ph.D. Second edition. New York, D. Van Nostrand Company, [c. 1942]. 533 pages, illustrated. 8vo. Cloth, $4.00.

THIS book is suitable as a reference text of biochemistry for the medical profession. The author covers the elements of the subject as well as the late advances in biochemistry and organic chemistry as it relates to medicine.

The discussion of CHO, Protein and Fat metabolism as well as Vitamins is well arranged. The composition of body tissues is explained. The digestion and utilization of foods and the action of catalysts and enzymes is described.

The metabolism of special tissues and the influence of hormones is discussed.

This book is recommended for the medical profession.

M. ANT

A New Text on Diseases of Women

Essentials of Gynecology. By Willard R. Cooke, M.D. Philadelphia, J. B. Lippincott Company [c. 1943]. 474 pages, illustrated. 8vo. Cloth, $6.50.

ANOTHER text book for the medical student and general practitioner, it is distinguished by a large number of excellent original illustrations. Very brief statements on the more uncommon gynecological conditions, and somewhat more expanded discussions of the more common problems characterize the work. Medical treatment, not surgery is stressed. The chapter on the patient herself, her mode of life, and the psychological processes of the feminine mind is of interest and value. The physician who reads this will be slow to recommend surgery. Incidentally, he will cure a great many more of his patients than he does now.

CHARLES A. GORDON

The Boston Lying-In Hospital

Safe Deliverance. By Frederick C. Irving, M.D., Boston, Houghton Mifflin Co. [c. 1942]. 308 pages. 8vo. Cloth, $3.00.

THIS is an outline of the history of the Boston Lying-In Hospital and a brief summary of the high-lights in the evolution of obstetrics. Two-thirds of the book is taken up with the biography of the Lying-In and the great worthies who attended it down through the years.

The book is another contribution to the history of obstetrics and does not add anything new, except as it glorifies the Boston Lying-In Hospital and some of the old boys of the Victorian decade who ran it.

FRANCIS B. DOYLE

Skin Handbook for the Military Surgeon

Manual of Dermatology. Issued under the Auspices of the Committee on Medicine of the Division of Medical Sciences of the National Research Council. By Donald M. Pillsbury, M.D., Marion B. Sulzberger, M.D. and Clarence S. Livingood, M.D. Philadelphia, W. B. Saunders Company, [c. 1942]. 421 pages, illustrated. 8vo. Cloth, $2.00.

THIS manual, prepared expressly for military surgeons, recognizes that a large proportion of medical personnel in our armed forces has little or no experience in handling dermatological cases.

The first chapters deal with diagnosis and discuss case history, primary and secondary lesions, body distribution and eruptions of commonly involved sites. In successive chapters are found groups of diseases such as eczema-dermatitis, fungous infections, pyodermas, etc., with little space for description of disease but much devoted to therapy. Since this book is a military manual, it does not include rare diseases.

E. ALMORE GAUVAIN

Popular Account of Reproduction

The Hormones in Human Reproduction. By George W. Corner. Princeton, Princeton University Press, [c. 1942]. 265 pages, illustrated. 8vo. Cloth, $2.75.

A DELIGHTFUL book; this first complete account of reproduction in man written for the general reader might well be read by every physician in this country, no matter who he is or what his background. Beautifully written by an embryologist who has distinguished himself in this field of research, it is not only clear but comprehensive. Excellent photographs and well chosen quotations for chapter headings adorn this little volume of authoritative, easily read information. The entire story of one brilliant discovery after another is here. Highly recommended.

CHARLES A. GORDON

A Study of Enzymes

A Symposium on Respiratory Enzymes. Madison, The University of Wisconsin Press, [c. 1942]. 281 pages. 8vo. Cloth, $3.00.

ALTHOUGH this is not a book for the general medical reader, the wealth and scope of material makes it of interest to the biochemist, the physiologist, and the pathologist. It is highly recommended to all those interested in the activity not only of normal tissues but of pathological as well.

The information is well presented and so divided that the book constitutes a convenient reference source.

G. B. RAY

BOOKS RECEIVED *for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.*

Nutrition and the War. By Geoffrey Bourne, D.Sc. 2nd Edition. New York, The Macmillan Company [c. 1943]. 148 pages. 16mo. Cloth, $1.60.

Primer of Allergy. By Warren T. Vaughan, M.D. 2nd Edition. St. Louis, C. V. Mosby Company, [c. 1943]. 176 pages, illustrated. 12mo. Cloth, $1.75.

Manual of Industrial Hygiene and Medical Service in War Industries. Issued under the Auspices of the Committee on Industrial Medicine of the Division of Medical Sciences of the National Research Council. By William M. Gafafer, D.Sc. (Editor). Philadelphia, W. B. Saunders Company, [c. 1943]. 508 pages. 8vo. Cloth, $3.00.

The Art of Seeing. By Aldous Huxley. New York, Harper & Brothers, [c. 1942]. 273 pages. 8vo. Cloth, $2.50.

Textbook of Biochemistry. By Benjamin Harrow, Ph.D. 3rd Edition. Philadelphia, W. B. Saunders Company, [c. 1943]. 537 pages, illustrated. 8vo. Cloth, $4.00.

Flying Men and Medicine. The Effects of Flying Upon the Human Body. By E. Osmun Barr, M.D. New York, Funk & Wagnalls, [c. 1943]. 254 pages.. 8vo. Cloth, $2.50.

Acute Infections of the Mediastinum. By Harold Neuhof, M. D., & Edward E. Jemerin, M.D. Baltimore, The Williams & Wilkins Company, [c. 1943]. 407 pages, illustrated. 8vo. Cloth, $6.00.

The Kenny Concept of Infantile Paralysis and Its Treatment. By John F. Pohl, M.D., in collaboration with Sister Elizabeth Kenny. St. Paul, Minneapolis, Bruce Publishing Company, [c. 1943]. 366 pages, illustrated. 8vo. Cloth, $5.00.

Textbook of Anatomy and Physiology for Nurses. By Carl C. Francis, M.D., G. Clinton Knowlton, Ph.D., and W. W. Tuttle, Ph.D. St. Louis, C. V. Mosby Company, [c. 1943]. 586 pages, illustrated with 39 color plates. 8vo. Cloth, $3.50.

A History of Nursing. By Deborah MacL. Jensen, R.N., M.A., St. Louis, C. V. Mosby Company, [c. 1943]. 310 pages, illustrated. 8vo. Cloth, $2.75.

Convulsive Seizures. By Tracy J. Putnam, M.D. Philadelphia, J. B. Lippincott Company, [c. 1943]. 168 pages, illustrated. 12mo. Cloth, $2.00.

The Inner Ear. By Joseph Fischer, M.D. & Louis E. Wolfson, M.D. New York, Grune & Stratton, Inc., [c. 1943]. 421 pages, illustrated. 8vo. Cloth, $5.75.

War Injuries of the Chest. Edited by H. Morriston Davies & Robert Coope. Baltimore, The Williams & Wilkins Company, [c. 1942]. 131 pages, illustrated. 12mo. Cloth, $2.00.

A Textbook of Pathology. By William Boyd, M.D. 4th Edition. Philadelphia, Lea & Febiger, [c. 1943]. 1008 pages, illustrated. 8vo. Cloth, $10.00.

EDITORIALS

—Concluded from page 179

The Chiropractic Situation

THE New York Legislature, it appears, is taking steps to investigate chiropractic laws in other states with a view to the regulation and control of chiropractic in the State of New York. An appropriation of $10,000 is available for the expenses of the commission.

There has been talk on the part of the public of a licensing of "qualified" chiropractors. What can "qualified" possibly mean in the case of a chiropractor?

Since chiropractic has been legalized in some states the present situation is not wholly devoid of danger.

In time of war such as the present, with a great depletion of physicians, the element of danger would seem to be enhanced.

Prosecutions for this type of practice, not now legal, rest upon complaints, and it is our understanding that the chiropractors manage, by cunning in the acceptance of patients and the rejection of risks, to circumvent the authorities.

It's a kind of fifth-column sabotage of the public health and of the medical profession.

CANCER

—Concluded from page 189

BIBLIOGRAPHY

Previous reports of ten year survivals have been published in the MEDICAL TIMES as follows: April, 1937; 65:193. April, 1938; 66:192. February, 1939; 67:75. April, 1940; 68:179. January, 1941; 69:23. September, 1942; 70:315.

Previous reports of five to nine year survivals have been made as follows: July, 1932; 60:218. June, 1933; 61:179. March, March, 1939; 67:125. May, 1940; 68:223. July, 1941; 69:307 and in the *New York State Journal of Medicine:* July, 1935; 35:731. 1934; 62:81. May, 1937; 65:253. May, 1938; 66:246.